

A review of the genus *Erythresthes* Thomson, 1864 (Coleoptera: Cerambycidae: Cerambycinae)

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Abstract: The genus *Erythresthes* Thomson, 1864 is reviewed. Four species in this genus are known so far from China and Southeast Asia, with *E. eximius* Holzschuh, 2009 as new Chinese record. The female of *E. eximius* was collected and described for the first time from China. The distribution of *Erythresthes shimomurai* Holzschuh, 1989 in Vietnam was also recorded for the first time. A key to species of the genus was provided.

Key words: Chrysomeloidea; Pyrestini; taxonomy; key

长红天牛属研究 (鞘翅目: 天牛科: 天牛亚科)

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摘要: 记述了世界长红天牛属种类。该属目前已知 4 种, 分布于中国和东南亚地区, 其中奇长红天牛 *Erythresthes eximius* Holzschuh, 2009 为中国新纪录种, 本文首次描述了该种的雌性。首次记录了下村长红天牛 *Erythresthes shimomurai* Holzschuh, 1989 在越南的分布, 并编制了长红天牛属的分种检索表。

关键词: 叶甲总科; 折天牛族; 分类; 检索表

Introduction

The genus *Erythresthes* was established by Thomson (1864) with *Erythrur bowringii* Pascoe, 1863 as type species. Holzschuh (1989, 2005, 2009) added three more species to the genus. As a result, four species in this genus are known so far from China and Southeast Asia.

Dayaoshan Nature Reserve is located at the juncture of Jinxiu, Lipu and Mengshan Counties in east central Guangxi, China. It covers an area of about 256 square kilometres between 110°01'–110°22' E and 23°52'–24°22' N. The reserve is situated at the north edge of the Tropic of Cancer and has a typical subtropical mountain climate with distinct horizontal and vertical differentiations (Li 1988; Tan & Luo 2010). About 71 species of longicorn beetles

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were preliminarily reported from the reserve with 12 species identified only to the genus level (Li 1988; Tan & Luo 2010). Twelve more species were added to the fauna of the reserve since 2008 (Lin *et al.* 2008; Chou 2009; Lin *et al.* 2009; Lin & Yang 2011; Lin & Jiroux 2011; Lin *et al.* 2012; Lin & Holzschuh 2013; Rapuzzi & Sama 2014). However, no systematic survey had been conducted so far, and the actual status of longicorn beetle biodiversity was unknown. In order to have a better understanding of the longicorn beetle fauna of the reserve, a thorough investigation was carried out from April to August 2014, and about 6000 specimens representing more than 100 species were collected there. Here we report two *Erythresthes* species from the reserve with *E. eximius* Holzschuh, 2009 as a new Chinese record. The female of *E. eximius* was also discovered and described for the first time. The genus *Erythresthes* Thomson, 1864 is reviewed. The distribution of *Erythresthes shimomurai* Holzschuh, 1989 in Vietnam was also recorded for the first time. A key to species of the genus was provided. All materials examined are deposited in the Insect Collection of Central South University of Forestry and Technology and personal collection of Eduard VIVES.

Taxonomy

Genus *Erythresthes* Thomson, 1864

Erythresthes Thomson, 1864: 158; Gressitt, 1951: 187; Gressitt *et al.*, 1970: 179; Jiang *et al.*, 1985: 72; Wang, 2014: 361.

Type species: *Erythrur bowringii* Pascoe, 1863.

Generic diagnosis. Body elongated, partially covered with long and dense decumbent hairs. Head slightly long. Frons broadly depressed in the middle, forming a reverse trapezoid region. Eyes deeply concave inside with ommatidia slightly thick, lower lobe large and subtriangular. Antennae thick and compressed, serrated beginning the third or fourth segment, slightly exceeding the body in male but slightly shorter than the body in female; antennal tubercles high or flat. Pronotum longer than broad, with posterior margin slightly wider than anterior margin, both sides slightly swollen behind the middle; disc with a distinct longitudinal carina in the middle, either throughout or very short. Elytra extremely long, with lateral margins subparallel, apices slightly broad and apical margin truncate, and the dorsal surface having a blunt carina. Legs stout and short, with hind femora not exceeding the second abdominal ventrite.

The genus is similar to *Erythrur* White, 1853, but can be distinguished from the latter by antennae serrated beginning the third or fourth segment (serrated beginning the fifth segment in the latter), frons with a distinct broad longitudinal sulcus, pronotum with a median longitudinal carina, elytra with apical margin truncate (rounded in the latter), body much more elongated and covered either dorsally or ventrally with long and dense decumbent hairs. This genus is composed of two subgenus, *Erythrestes* Thomson and *Etyrrhus* Holzschuh (Holzschuh, 1989).

Key to the species of the genus *Erythresthes* Thomson

1. Antennae serrated beginning the fourth segment (subgenus *Erythresthes*)2
- . Antennae serrated beginning the third segment (subgenus *Etyrrhus*)3
2. Body black, ventral surface covered with yellowish long appressed soft pubescences (China; Laos).....

-*Erythresthes eximius* Holzschuh
- . Body reddish in head, dorsal surface of pronotum and elytra; dorsal surface of the body covered with silk-like pubescence, and ventral surface covered with fine grey pubescence (China)
-*Erythresthes bowringii* (Pascoe)
3. Elytra shorter, with a small sutural spine invisible in dorsal view (Thailand)
-*Erythresthes (Etyrrhus) shimomurai* Holzschuh
- . Elytra longer, with a large sutural spine visible in dorsal view (Malaysia)
-*Erythresthes (Etyrrhus) sericellus* Holzschuh

1. *Erythresthes bowringii* (Pascoe, 1863) (Figs. 1, 2)

Erythrur bowringii Pascoe, 1863: 52.

Erythresthes bowringii (Pascoe); Thomson, 1864: 159; Waterhouse, 1890: 188; Aurivillius, 1912: 290; Gressitt, 1939: 35; Gressitt, 1951: 187; Gressitt *et al.*, 1970: 179 (in the key); Jiang *et al.*, 1985: 72; Hua, 2002: 207; Hua *et al.*, 2009: 37 (genus name misspelt as *Erythresthes*), 167 (genus name misspelt as *Erythresthes* and *Erysthenes*), 304 (genus name misspelt as *Erysthenes*); Lin, 2014: 128; Wang, 2014: 361.

Type locality. China (Hong Kong).

Male. Body length: 16.5–23.0 mm; humeral width: 2.5–4.0 mm.

Head, pronotal disc and lateral sides, and elytra reddish brown, densely covered with reddish or orange silk-like pubescence; antennae, ventral surface of pronotum, meso- and metathorax, legs, abdomen black, covered with fine hoar hair; ventral surfaces of middle femora covered with dense short golden pubescence.

Body medium-sized and elongate; head square in frontal view, coarsely punctate. Mandibles stout and coarsely carinately rugose. Clypeus square, with a transverse depressed sulcus near the middle. Frons broadly depressed in the middle to form a reversed trapezoid region; anterior margin distinctly produced between the inner sides of the mandibles; dorsum with a semicircular sulcus near the anterior margin; lateral carinae straight, fine and distinct, extending from near the base of mandibles to vertex; median sulcus distinct and slightly broad, extending to occiput. Antennal tubercles large and flat. Vertex broad. Occiput with dense granules in the glabrous region near the posterior margin. Antennae long, extending slightly beyond the body; scape thick, covered with coarse and rugose irregular punctures, shorter than the third segment, nearly as long as the fourth segment; the fourth to tenth segments compressed externally, ectoapical corner produced and serrated. Pronotum long oval, with posterior margin slightly wider than anterior margin, both sides slightly swollen behind the middle; disc coarsely rugose, with a distinct longitudinal carina in the middle, an indistinct round glabrous tuberosity at each side of the longitudinal carina before the middle portion, and a glabrous rugose stripe near each of the posterolateral corners. Scutellum small and semicircular. Elytra slender, about four times as long as humeral width, broadly swollen beside suture at the basal fifth, with a broad and blunt carina from humerus to the side of sutural margin near the apex; apices flat, thin and truncate, with sutural and marginal corners bluntly rounded. Legs short; femora with a fine longitudinal carina at both external and internal sides of the ventral surfaces; fore and middle femora clavate or fusiform; hind femora distinctly longer than tibiae, slightly exceeding the first abdominal ventrite. Abdomen with the first ventrite slender, nearly as long as the second to third ventrites combined; terminal ventrite with posterior margin angularly concave in the middle.

Female. Body length: 25.0–26.0 mm, humeral width: 3.0–3.5 mm.

Similar to male. Body slightly longer and stouter than male, antennae distinctly shorter than body, only reaching three-fifths of elytra, terminal abdominal ventrite with posterior margin deeply and broad-roundedly concave.

Specimens examined. 1♂1♀, **China**, Guangxi, Jinxiu County, Linxiang Village, 14-V-2014, collected by Yuanyong HUANG (Figs. 1, 2).

Host plant. *Castanea* spp.

Distribution. China (Guangxi, Hubei, Hunan, Jiangxi, Anhui, Zhejiang, Guangdong, Hong Kong).

2. *Erythresthes eximius* Holzschuh, 2009 (Figs. 3–6), new record to China

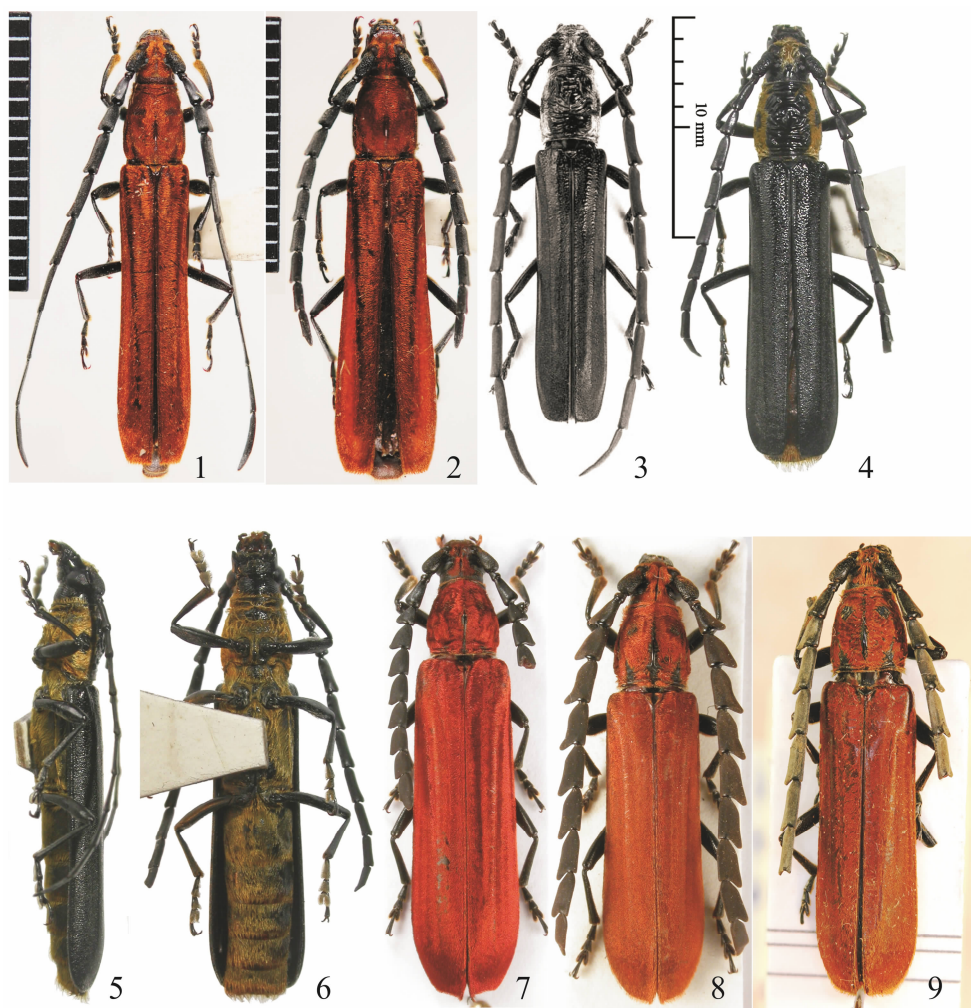
Erythresthes (s. str.) *eximius* Holzschuh, 2009: 314.

Type locality. Laos.

Male. Body length: 19.0 mm; humeral width: 3.4 mm.

Body black, except part of the antennae slightly reddish; ventral surface of the body, lateral sides of pronotum, vertex and the upper portion of frons densely covered with yellowish long appressed soft pubescences except the abdominal apex and the rounded glabrous spots on the lateral sides of pronotum near the middle. Head with a pair of longer distinct hairbrushes just on the ventral surface. Antennae glabrous and shiny in the first three basal segments, and densely short pubescent and obscure in the remaining segments. Middle femur with a large yellowish dense hairbrush on the ventral surface; hind femur with a hairfringe on the basal half of the upper side; the ventral surface of the fore and hind femora extremely sparsely and distinctly pilose. Pronotal disc glabrous. Elytra just with sparse short pubescence, showing a glabrous appearance.

Head short, prognathous. Mandibles moderately strong, roundedly curved inside. Clypeus square, strongly and densely punctate. Frons transversely broad, densely and extremely finely punctate, with a distinct V-shaped sulcus extending from near the middle of the anterior margin to the lower sides of the antennal tubercles; anterior margin produced between the inner sides of the mandibles; the area enclosed by the V-shaped sulcus and the inner sides of the antennal tubercles deeply depressed. Genae long and smooth. Eyes composed of fine facets. Vertex deeply concave, densely and extremely finely punctate, with fine granules at the posterior margin of the occiput. Antennae extending over the elytra by a segment, oblate, much more bluntly serrated ectoapically and finely and extremely densely punctate beginning at segment 4. Pronotum convex, one and a half times longer than the width in the middle; anterior margin distinctly narrowed, with a fine furrow close to it; posterior margin slightly narrowed; lateral sides evenly flatly convex, slightly constricted near the anterior margin, with coarse irregular carinate rugae; disc smooth and shiny in ground, with transverse or rounded coarse carinate rugae and a short longitudinal carina in the middle. Elytra nearly four times longer than the humeral width, lateral sides parallel backwards, apex straightly truncate with external corners rounded and sutural corner extended in a short spine. Dorsum of the elytra each covered with 3 broad longitudinal carinae ended before the apex; the humeral area and the basal half between the inner carina and the sutural margin glabrous or coarsely punctate but shiny, the remaining part of the elytra finely and densely punctate and a little obscure. Legs thin and short; fore and middle femora a little clavate; hind femora not reaching the second abdominal ventrite.



Figures 1–9. *Erythresthes* spp.: 1, 2. *Erythrus bowringii* Pascoe, 1863; 3–6. *Erythresthes* (s. str.) *eximius* Holzschuh, 2009; 7. *Erythresthes sericellus* Holzschuh, 2005; 8, 9. *Erythresthes shimomurai* Holzschuh, 1989. 1. Male from Dayaoshan, Guangxi; 2, 4–6. Female from Dayaoshan, Guangxi; 3. Holotype male from Laos (from Holzschuh, 2009); 7. Holotype female; 8. Holotype male; 9. Female from Vietnam.

Female. Body length: 22.0 mm; humeral width: 3.5 mm. Similar to male. Antennae distinctly shorter than the body, only reaching to about the four-fifths of the elytra. Vertex deeply concave, with a moderate deep rounded pit just between the upper eyelobes, occiput finely punctate and slightly shining, with a shallow sulcus in the middle after the pit. Abdomen cylindrical, decreasing in length of the abdominal segments; the posterior margin of the terminal tergite broadly and roundedly concave.

Specimen examined. 1♀, **China**, Guangxi, Jinxiu County, Linxiang Village, 14-V-2014, Yuanyong HUANG.

Distribution. China (Guangxi); Laos.

Remarks. The species was originally described based on a single male from Laos

(Holzschuh 2009). We collected for the first time a female of the species from Dayaoshan, Guangxi, China. The discovery of the species in central Guangxi indicates a broad potential distribution of this species.

3. *Erythresthes sericellus* Holzschuh, 2005 (Fig. 7)

Erythresthes (Etyrrhus) sericellus Holzschuh, 2005: 36.

Type locality. Malaysia.

Distribution. Malaysia.

4. *Erythresthes shimomurai* Holzschuh, 1989 (Figure 8, 9) new record to Vietnam

Erythresthes shimomurai Holzschuh, 1989: 378.

Type locality. Thailand.

Specimen examined. 1 ♀, **N.Vietnam**, Tam Dao National Park, 29-V-2011, Eduard VIVES leg.

Distribution. Thailand; Vietnam.

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